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Section I: Top Ten Reportable Diseases in Missouri as of September 7, 2004*

The following data were reported through the MISSOURI HEALTH SURVEILLANCE INFORMATION SYSTEM (MOHSIS) and the TUBERCULOSIS INFORMATION MANAGEMENT SYSTEM (TIMS). For diseases reported through MOHSIS, counts include confirmed and probable cases only, except for acute Hepatitis C that includes only confirmed cases. For tuberculosis reported through TIMS, counts include only verified cases of TB disease.

As of Report Week #35 (week ending September 4, 2004), influenza and chronic Hepatitis C were the two most common reportable diseases in Missouri; with over two thousand reported cases each (**Table 1**). Campylobacteriosis, salmonellosis, and giardiasis were the next most common diseases; with between three hundred and five hundred reported cases each. As a result of case report reconciliation, acute Hepatitis C is no longer one of the top ten reportable diseases in Missouri.

Of the ten diseases with the highest number of reported cases through Report Week #35, the year-to-date case count of five significantly exceeded the 5-year median value (**Table 1**). These five diseases were influenza, acute and chronic Hepatitis B, chronic Hepatitis C, and pertussis. The 2004 year-to-date case counts for pertussis and chronic Hepatitis B were substantially higher (i.e., >300%) than the 5-year median value. [NOTE: A portion of this increase may reflect improvements in, or changes to, reporting.] Conversely, the year-to-date case count of two diseases (i.e., giardiasis, and shigellosis) was significantly below the 5-year median (**Table 1**).

** Data analysis in this section does not include sexually transmitted diseases. Additionally, all 2004 communicable disease data presented in this section are provisional.*

Section I: Top Ten Reportable Diseases in Missouri - Continued

Table 1. Top Ten (by Count) Reportable Diseases and/or Conditions in Missouri – **excluding sexually transmitted diseases** – as of September 7, 2004 (through Report Week #35).

Top Ten Disease/Conditions	Year-to-Date Count (2004)	5-Year Median Count (1999-2003)	2004 as a Percent of the 5-Year Median	2004 Crude Rate per 100,000^a
Influenza	4,304	2,418	178%	76.92
Hepatitis C, chronic infection ^b	2,004	863	232%	35.82
Campylobacteriosis	455	415	110%	8.13
Salmonellosis	435	484	90%	7.77
Giardiasis	342	440	78%	6.11
Pertussis	224	58	386%	4.00
Hepatitis B, chronic infection ^c	212	68	312%	3.79
Hepatitis B, acute infection	139	96	145%	2.48
Shigellosis	113	268	42%	2.02
Tuberculosis	82	95	86%	1.47

a. Year to date crude rates calculated using 2000 U.S. Census data.

b. Prior to 2002, Hepatitis C, chronic infection was not reportable. As a result, the interpretive utility of the year median value for chronic Hepatitis C is limited.

c. Hepatitis B, chronic infection did not become reportable until 2003. As a result, year-to-date data for 2003 was substituted for the 5-year median value.

Section II: In the Spotlight - Pertussis

The Epidemiology of Pertussis.^{1,2} Pertussis is a highly communicable, vaccine-preventable disease. In the United States, pertussis is an endemic illness, and epidemics occur every 3-5 years. The most recent epidemic occurred in 1996. The incidence of pertussis has increased steadily since the 1980s, with disproportionate increase in adolescents and adults.

Pertussis usually lasts for many weeks and is typically manifested in children with paroxysmal spasms of severe coughing, whooping, and posttussive vomiting. Major complications are most common among infants and young children and may include hypoxia, apnea, pneumonia, seizures, encephalopathy, and malnutrition. Young children can die from pertussis. Most deaths occur among unvaccinated children or children too young to be vaccinated.

Transmission of pertussis occurs through direct contact with discharges from respiratory mucous membranes of infected persons. Pertussis is highly contagious, with up to 90% of susceptible household contacts developing clinical disease following exposure. Children who are too young to be fully vaccinated and those who have not completed the primary vaccination series are at highest risk for severe illness. Adolescents and adults become susceptible when immunity wanes.

Vaccination and Prophylaxis. A single vaccine includes diphtheria, tetanus, and pertussis – or DTaP. The DTaP is a new, and safer, version of DTP, which is no longer in use. Children should get one dose at each of the following ages – 2 months, 4 months, 6 months, 15-18 months, and 4-6 years; for a total of five doses of DTaP. In general, children who are moderately or severely ill should wait until they recover before being vaccinated with DTaP. A child who had a life-threatening allergic reaction or a brain/nervous system disease within 7 days after a dose of DTaP should not receive another dose. DTaP should not be given to anyone 7 years of age or older.

When pertussis is highly suspected in an individual, chemoprophylaxis of all close and high-risk contacts is recommended regardless of their age and vaccination status. Initiating chemoprophylaxis 3 weeks or more after exposure has limited benefit for the contacts. However, chemoprophylaxis should be considered for high-risk contacts up to 6 weeks after exposure.

1. Department of Health and Human Services, Centers for Disease Control and Prevention > National Center for Infectious Diseases > Infectious Diseases Information > Pertussis.

http://www.cdc.gov/ncidod/diseases/submenus/sub_pertussis.htm

2. Communicable Disease Investigation Reference Manual – Revised 7/03. Missouri Department of Health and Senior Services, Division of Environmental Health and Communicable Disease Prevention Section for Communicable Disease Prevention. Jefferson City, Mo.

<http://www.dhss.mo.gov/CDManual/CDManual.htm>

Section II: In the Spotlight: Pertussis - Continued

Pertussis in Missouri – 2003. In 2003, there were 208 reported cases of confirmed and probable pertussis.³ Of these, 44.2% of the cases were male and 55.3% female. Considering race/ethnicity; 77.9% identified themselves as white, 10.6% as black, 1.4% as Asian, 1.4% as Hispanic/Latino, and the remainder did not have a race/ethnicity designation. Over three-fifths of pertussis cases occurred (or were reported) in the fall (i.e., October and November) (**Table 2**). Over two-thirds of cases occurred in children aged 0-4 and 5-14 years, while over one-tenth occurred in adolescents/young adults aged 15-24 years. The Northwest Health District had three-fifths of reported cases, while the Eastern Health District had one-quarter.

Table 2. 2003 Distribution of Reported Cases of Confirmed and Probable Pertussis; by Event Date, Age Group, and Health Region.

Month	Percent of Cases	Age Group	Percent of Cases	Health Region	Percent of Cases
January	2.9%	0-4	35.1%	Northwest	60.6%
February	1.9%	5-14	33.7%	Eastern	25.0%
March	1.9%	15-24	12.0%	Central	7.7%
April	3.3%	25-34	6.7%	Southeast	1.4%
May	2.9%	35-44	6.7%	Southwest	5.3%
June	4.3%	45-54	2.9%	Out-of-State	--
July	6.7%	55-64	2.4%	Unknown	--
August	3.8%	65-74	--		
September	3.8%	75-84	--		
October	19.0%	85+	--		
November	41.9%	Unknown	0.5%		
December	7.6%				

-- Indicates no reported confirmed or probable case(s) in this socio-demographic category.

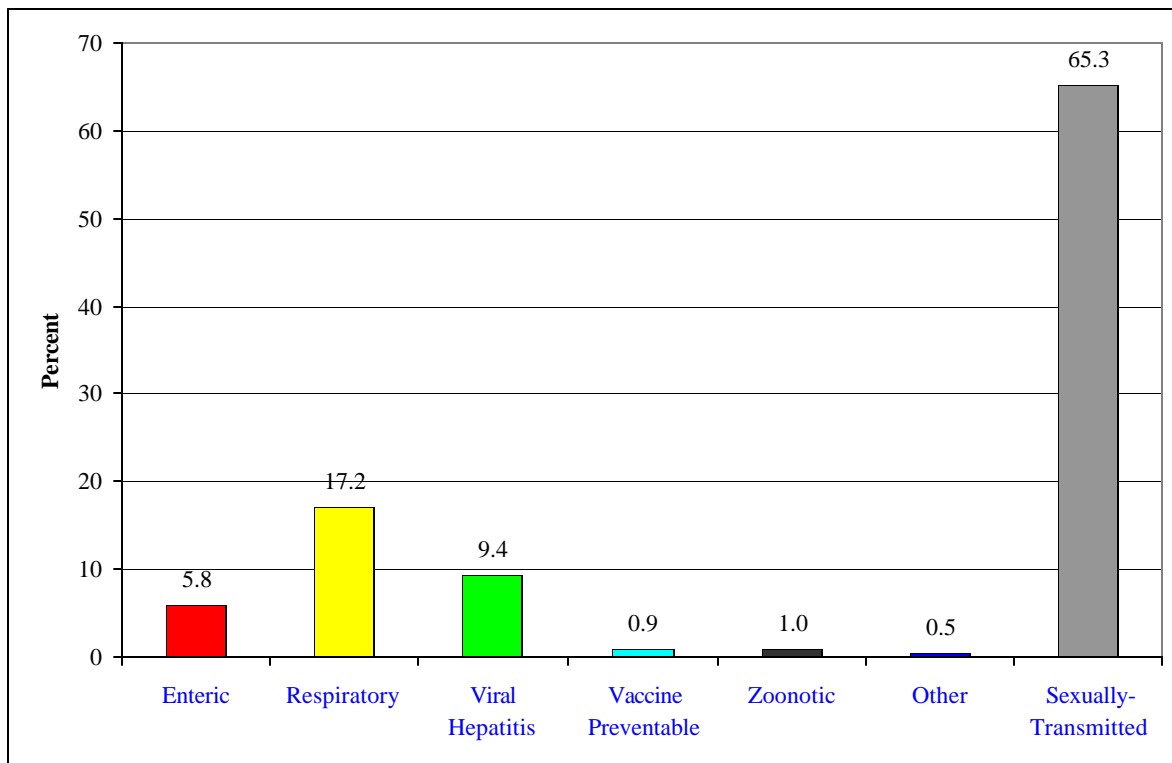
3. Annual Report: January – December 2003. Missouri Department of Health and Senior Services, Division of Environmental Health and Communicable Disease Prevention, Office of Surveillance Jefferson City, Mo. <http://www.dhss.mo.gov/CommunicableDisease/03Annual.pdf>

Section III: Distribution of Reported Cases, by Disease Category*

As of September 7, 2004; excluding the ‘Animal Bite’ classification, sexually-transmitted diseases – **excluding HIV** – comprised the largest percentage of cases (65.3%) through Report Week #35 (week ending September 4, 2004) (**Figure 1**).* Respiratory diseases comprised the next largest percentage of cases (17.2%), followed by viral hepatitis (9.4%) and enteric diseases (5.8%). The remaining disease categories (i.e., vaccine preventable, zoonotic, and other disease) each comprised 1% or less of the total number of reported cases.

** Data for sexually transmitted diseases (STD) are through June 30, 2004. Additionally, all 2004 communicable disease data presented in this section are provisional.*

Figure 1. Percentage of Reportable Diseases and/or Conditions in Missouri – **excluding HIV** – reported as of September 7, 2004 (through Report Week #35) – by Disease Category.*



Section IV: Links to other Communicable Disease Surveillance Unit Reports*

Other Communicable Disease Surveillance Unit Reports

Report Title	Report Interval	Report Web Location
Summary of Notifiable Diseases in Missouri	annual	http://www.dhss.mo.gov/CommunicableDisease/Reports.html
Previous Communicable Disease Newsletters	monthly	http://www.dhss.mo.gov/CommunicableDisease/Reports.html
Rabies Surveillance	monthly	http://www.dhss.mo.gov/Rabies/index.html
HIV/STD Statistical Reports	various	http://www.dhss.mo.gov/HIV_STD_AIDS/Data.html
Influenza Surveillance	weekly	http://www.dhss.mo.gov/Influenza/Reports.html

* To obtain additional information please contact the Office of Surveillance at (573) 752-9071.

Other Communicable Disease Resources

Resource Title	Resource Web Location
List of Diseases and Conditions Reportable in Missouri	http://www.dhss.mo.gov/CommunicableDisease/reportablediseaselist2.pdf
MDHSS Disease Case Report (CD-1)	http://www.dhss.mo.gov/CDManual/CDappends.pdf
Communicable Disease Investigation Reference Manual	http://www.dhss.mo.gov/CDManual/CDManual.htm
Missouri Information for Community Assessment	http://www.dhss.mo.gov/MICA/nojava.html

Section III: Distribution of Reported Cases, by Disease Category:

Enteric

NUMBER OF REPORTED CASES AS OF SEPTEMBER 7, 2004	
<i>ENTERIC DISEASES</i>	
Acute gastrointestinal illness	5
Botulism, infant	1
Campylobacteriosis	455
Cryptosporidiosis	50
Cyclosporiasis	2
Escherichia coli O157:H7	50
E. coli, shiga toxin positive, serogroup non-O157:H7	11
E. coli, shiga toxin positive, not serogrouped	7
Giardiasis	342
Hemolytic uremic syndrome (HUS), post-diarrheal	11
Salmonella	435
Shigellosis	113
Typhoid fever (Salmonella typhi)	1
Yersiniosis	12
TOTAL	1495

Section III: Distribution of Reported Cases, by Disease Category:

Respiratory

NUMBER OF REPORTED CASES AS OF SEPTEMBER 7, 2004	
<i>RESPIRATORY DISEASES</i>	
Adult respiratory distress syndrome	1
Blastomycosis	2
Coccidioidomycosis	3
Influenza, laboratory-confirmed	4304
Legionellosis	15
Tuberculosis disease	82
TOTAL	4407

Section III: Distribution of Reported Cases, by Disease Category:

Viral Hepatitis

NUMBER OF REPORTED CASES AS OF SEPTEMBER 7, 2004	
<i>VIRAL HEPATITIS</i>	
Hepatitis A	33
Hepatitis B, acute	139
Hepatitis B, chronic	212
Hepatitis B Virus Infection, perinatal	0
Hepatitis B surface antigen in pregnant women	11
Hepatitis C, acute	3
Hepatitis C, chronic	2004
Hepatitis non-A, non-B, non-C	3
TOTAL	2405

Section III: Distribution of Reported Cases, by Disease Category:

Vaccine Preventable

NUMBER OF REPORTED CASES AS OF SEPTEMBER 7, 2004	
<i>VACCINE PREVENTABLE DISEASES</i>	
Measles (rubeola)	2
Mumps	3
Pertussis	224
Rubella, including congenital syndrome	1
TOTAL	230

Section III: Distribution of Reported Cases, by Disease Category:

Zoonotic

NUMBER OF REPORTED CASES AS OF SEPTEMBER 7, 2004	
<i>ZOONOTIC DISEASES</i>	
Brucellosis	2
Ehrlichiosis, human granulocytic	15
Ehrlichiosis, human monocytic	32
Ehrlichiosis, other/unspecified agent	2
Leptospirosis	1
Lyme(-like) disease	46
Malaria	15
Psittacosis	1
Q Fever	2
Rabies, animal	41
Rocky Mountain spotted fever	73
Tularemia	16
West Nile fever and viral encephalitis/meningitis	10
TOTAL	256

Section III: Distribution of Reported Cases, by Disease Category:

Other

NUMBER OF REPORTED CASES AS OF SEPTEMBER 7, 2004	
<i>OTHER DISEASES</i>	
Aseptic and Bacterial meningitis, other	18
Meningitis, fungal	6
Meningococcal disease, invasive	12
Haemophilus influenzae, invasive disease	26
Listeriosis	3
Streptococcal disease, invasive, Group A	42
Streptococcus pneumoniae, invasive in children <5 years	13
Streptococcus pneumoniae, drug resistant invasive disease	11
Creutzfeldt-Jakob disease	2
TOTAL	133

Section III: Distribution of Reported Cases, by Disease Category:

Sexually-Transmitted

NUMBER OF REPORTED CASES AS OF JULY 31, 2004	
<i>SEXUALLY-TRANSMITTED DISEASES</i>	
Chlamydia trachomatis infections	11779
Gonorrhea	4846
Syphilis - early	62
Syphilis - latent and duration unknown	81
Syphilis - congenital	1
TOTAL	16769